

## ABSTRACT OF THE DISCLOSURE

A calculating device and method provided for a shaking test apparatus for carrying out a shaking test on a structure by using a partial structure and a numerical model which is  
5 virtually connected to the partial structure. The calculating device includes a calculation part which identifies a vibration model corresponding to the partial structure on the basis of displacement and reaction force detected in response to shaking and which combines the vibration model and the  
10 numerical model with each other to construct a model of the overall system corresponding to the structure and calculates the shaking response of the overall system model.